Bill Moore August 19, 2005
Stormwater Program Manager
Washington State Department of Ecology
Lacey, WA

Re: Preliminary Draft Phase I and Phase II Stormwater General Permits

Dear Bill:

Thank you for the opportunity to comment on the Preliminary Drafts of the Phase I and II permits. This issue is of particular importance to People for Puget Sound. As you are aware, there is now a large body of evidence which demonstrates that pollution and hydrologic impacts from stormwater is perhaps the greatest single threat to the Puget Sound ecosystem. The report issued by Ecology this past week on results of sediment monitoring at ten stations around the Sound indicating that PAH from stormwater is major and growing problem further underscore the importance of moving forward on a strong permit.

While we are pleased that Ecology is moving forward on these permits and pleased to see new requirements such as the new monitoring program for Phase I permittees, we have a number of concerns which are outlined in this letter.

We share concerns raised by Soundkeeper and Smith and Lowney in their comment letter and will not restate many of the issues that they have already identified as needing to be corrected.

We have not provided new language in all cases, but look forward to working with you to amend the draft in these areas.

General Concerns

While we appreciate the difficulty and cost of establishing local stormwater programs, we are disappointed that the permits seemed to be geared, on the whole, to small, incremental progress on the problem rather than reflecting a strategy that is really designed to address water quality problems.

The permits do not require controls on land use practices which are widely regarded by scientists and planners as the key to controlling stormwater pollution. While we appreciate the reference in Sections S7(C) of both Phase I and Phase II permits on eliminating barriers to LID, the permits do not require LID. There are no requirements for basin planning or for land use planning processes to address stormwater concerns through the use of buffers, protection of forest lands, and other critical strategies. There is clear authority under the federal Clean Water Act for the state to require such strategies in order to achieve water quality objectives and, indeed, the state will need to mandate such actions in the development of TMDL's if they fail to do so under their NPDES permit authority.

Another major area of concern is the fact that, while more prescriptive than the existing Phase I permit, these permits do not set clear standards in many areas and fail to require program or plan approvals and oversight by Ecology. Much is left to the discretion of local governments. We feel that the permit should, first, be made more prescriptive with clear standards throughout and, second, require locals to submit for approval plans on such things as a monitoring and other key elements of their programs.

With the exception of the monitoring requirements, Phase I permittees are not required to advance their programs in any significant manner. While we do not wish to diminish the importance of a monitoring, given the fact that this is the first permit in over ten years, we think more should be required of those governed under the Phase I permit. Similarly, while we appreciate that Phase II jurisdictions are challenged to simply get programs up and running, that permit requires little more than establishment of program with relatively loose standards and long timeframes for compliance. This despite the fact that the Clean Water Act required that Phase II permits be in place two years ago. Given the nature of the problem, we question whether this "glacial" progress will correct the very serious impacts to the Puget Sound ecosystem before it is in total collapse.

Deadlines for action in both draft permits are often set further out than we believe is appropriate. In some cases the required action may not be implemented until near the end of the permit term.

Finally, while there are some indications in the permits that adaptive management will be pursued, particularly when permits are reissued, the permits should spell out this process in greater detail. The state needs to make clear that MEP will evolve over time and that our objective is to refine stormwater programs to achieve water quality and other environmental objectives. This will require better linkage between monitoring and adjustments in the programs themselves.

Specific Concerns Draft Phase I Permit:

<u>SI. Permit Coverage</u>

Subsection (B)(4) allows for additional MS4's to be regulated under this permit if Ecology determines that it is a "significant source of pollution to waters of the state." This language is vague. The permit should define when and how this determination is made.

The permit must clearly identify the regulatory status of "secondary permittees" which is currently vague.

<u>S2. Authorized Discharges</u>

While we recognize the need to avoid overlap with other programs, we are concerned that the exemption provided in A(3) for the UIC program may be too broad. The purpose of

that program is different than that of the Phase I permit and the relationship between the two is not well defined. As mentioned in Soundkeeper comments, these discharges must be regulated under the Clean Water Act.

The permit needs to also take into account possible benefits of separating CSO's where clean roof water might be directed to waterbodies.

S4. TMDL's

The permit does not require that TMDL's be incorporated into the permit as they are developed. We believe that where TMDL's exceed permit requirements, the permit should be amended to incorporate new TMDL's as they are approved.

S5. Compliance with Standards

Language in S5.A which states that the permit "does not authorize a violation of Washington surface water quality standards" is not meaningful (See Soundkeeper and Smith and Lowney comments).

We strongly support incorporation of requirements in the Western Washington Stormwater Manual, particularly requirements for flow control which call for utilization of forested conditions as a pre-development condition.

We object to S5.B which states that compliance with the permit constitutes "maximum extent practicable." As noted earlier, the permit contains no land use restrictions. It is difficult to argue that some level of land use restrictions are not "practicable" and that local jurisdictions have no obligation to make adjustments in this area. The permit should not arbitrarily define MEP in this way.

The process in C(1)(c) which allows for alternative BMP's should be better defined. How will an applicant demonstrate compliance with water quality standards?

We strongly support Section S5.(C)(2) which defines an adaptive management process for BMP's which is very sensible and necessary given the lack of knowledge around BMP effectiveness.

S6. Monitoring

As mentioned earlier, we strongly support new requirements for monitoring. Moreover, while we would support additional state funds to assist local governments in this area, we believe the primary obligation for both BMP effectiveness and general water quality monitoring belongs on local governments. This is consistent with other NPDES permits where permittees bear this responsibility.

We do feel, however, that the framework for monitoring needs to be spelled out in greater detail and that jurisdictions should submit monitoring plans to Ecology for approval. We also feel, as stated above, that the permit should outline a clear adaptive management process which requires upgrading controls and prevention measures if monitoring data indicates that such adjustments are necessary. This process should extend beyond adjustments in BMP's to other strategies likely to yield success.

Although Puget Sound researchers have put together a conceptual model of pollution movement into and within the Sound, scientists do not have a good handle on a critical piece of the puzzle – pollution loading. Ambient and focused sediment and water quality sampling shows that we continue to have significant loads of pollutants entering the system, especially toxic contamination. Animals at higher tropic levels on the food web, such as harbor seals, orca and osprey, are under threat due to toxic chemical contamination including PCBs and flame retardants (PBDEs). PBDEs, PAHs, phthalates and metals are carried into the system in urban runoff and stormwater. These pollutants come from human activities related to automobiles, residences, and businesses. It is critical, therefore, that high quality and adequate monitoring for toxic contaminants be included in the new stormwater permit.

Monitoring needs. The older stormwater monitoring approach relying solely on measuring land use types and adding up the amount of each land type to determine loads for watersheds (for instance, agricultural lands) doesn't work well when there is a significant variety of land uses within urbanized areas. Stormwater monitoring plans must include a large emphasis on receiving waters. We recommend that a minimal sampling plan includes wet weather sampling of key points within watersheds, including tributaries (i.e., creeks that run through urbanized areas), and at the bottom of the system where it enters Puget Sound or a major creek or river. The monitoring should also include bioassessments of the freshwater portions and monitoring of the benthic community at the mouths of major systems where they enter Puget Sound or the marine environment and toxicity testing of water and sediment.

Toxic contaminant sampling described in the draft permit is inadequate (Page 11). Toxic monitoring should include phthalates, which have been shown to be a human and wildlife reproductive toxin and are in stormwater runoff from urbanized areas of Puget Sound and PAHs, which are shown in Ecology's recent sediment report to be a major ongoing concern in Puget Sound. Additional contaminants should be included based on PSAMP results to ensure that the receiving waterbody biota data (i.e., Puget Sound aquatic species) matches up with the proposed stormwater sampling. For example, priority pollutants should be analyzed in stormwater during the same time frame as adjacent sampling for priority pollutants are monitored in Puget Sound through PSAMP. Monitoring should be adaptive and reflect new information gained as the monitoring program advances. Flexibility needs to be written into the permit so that if an emerging chemical shows up as a problem, then those chemicals would become part of the regular monitoring suite. Copper, lead, and zinc should be added to list of pollutants which permittees are required to monitor for during outfall sampling.

In some watersheds, a snapshot approach should be taken in which the entire watershed (key input locations) are sampled simultaneously. This approach helps provide high quality data for watershed water quality modeling.

Monitoring should be designed to determine the following questions:

- Is stormwater the source of contamination for each constituent of interest (as opposed to say, aerial deposition)?
- How do stormwater inputs vary over time?
- What are the sources of contamination within the watershed?

Structure. Regional and coordinated monitoring should be incentivized by Ecology. Rather than separate monitoring efforts by all of the different jurisdictions, a coordinated program based on a model such as Southern California Coastal Water Research Project (SCCWRP) should be encouraged for Puget Sound. This new entity should coordinate their sampling with existing and new PSAMP monitoring so we can more quickly begin to answer the key stormwater questions described above and reduce the highest priority toxic and other contamination to Puget Sound. A coordinated effort by one entity (funded by the stormwater permit jurisdictions as well as EPA, Ecology and other agencies) could involve using one laboratory and framework for Puget Sound monitoring. The advantages to having one entity in place is that the individual staff from each jurisdiction would not have to get "up to speed" on all of the latest technology and advances in sampling techniques and staff FTYs could be reduced at each jurisdiction. We suggest that this entity perform both baseline sampling and research-oriented sampling (i.e., what types of pollution are produced by each type of landuse). The entity would need to determine the most appropriate method for baseline sampling (systematic versus probability-based, for example) for the Puget Sound region.

Alternatively, a model stormwater program was developed by SCCWRP for Southern California called "Model Stormwater Monitoring for Municipal Separate Stormwater Systems in Southern California" (http://www.sccwrp.org/tools/stormwater.html). This model has three components: Monitoring Design, Laboratory manual, and Information Management. Applying this model to Puget Sound would involve individual monitoring by each jurisdiction but in a highly coordinated overall program. Key activities would include timing of monitoring, choice of parameters, laboratory intercalibration studies, and data management coordination.

Western Washington can do it right. Because stormwater monitoring is at its infancy, we can build a region-wide program that will be cost effective and provide high quality data to help reverse the decline of the health of Puget Sound.

S7. Stormwater Program

Generally, this section captures most of the important elements of good stormwater program. The noteable exception, of course, being the absence of any real requirements on land-use planning. While the requirements are generally more prescriptive than the

previous Phase I permit, this must be balanced against the lack of direct state approval of programs. Given that, we feel that there should be more prescriptive language in a number of areas.

While we appreciate deadlines for gathering information in (C)2, the deadlines seem too long. This is critical information which is necessary up front to make decisions on program design.

As mentioned earlier, we strongly support the use of Appendix I which is referenced in S7. (C)5. These standards represent the best thinking on technical standards for controlling stormwater pollution.

Again, we also appreciate requirements to remove barriers to LID, but, given the importance of this strategy, feel that the state should do more to require use of LID rather than simply remove barriers.

Section (C)6 goes to the very important issue of existing development and the necessity to address on-going problems through retrofitting, retention of forest cover and buffers, and other strategies. The language in this section, however, is vague and requires, at points, that permittees simply "consider" impacts or address impacts which are "not adequately controlled." Does "not adequately controlled" mean not achieving water quality standards, AKART, and MEP? Presumably this is the objective and should be made clear. Another question is how this approach will be linked to water quality monitoring? Furthermore, the permit simply requires that permittees outline the process used to evaluate these issues and sets no requirements for how the analysis be conducted. It is extremely important that Ecology set clear protocols for this process (e.g.-geographic scale) and set clear expectations in terms of outcomes. Without more definition here, the process is not all that meaningful. This is a very important element of any meaningful stormwater program. This is a good area in which to incorporate adaptive management requirements linked to water quality monitoring.

Contrast (C)6 with Section (C)7 on source control, which contains clear language in b(i) that source control BMP's include operational and structural source control BMP's which meet water quality, AKART, and MEP requirements. Moreover, this requirement is linked to BMP effectiveness monitoring found in S6(2) and (3). Subsection (C)6 should be revised to provide a similar adaptive management feedback loop.

Education is a key component of the stormwater program. Most of the changes that will be needed to reduce contaminants flowing in stormwater to Puget Sound will be based on changes in human behaviors. Simply producing brochures and public service announcements has been shown to be largely ineffective in obtaining widespread behavior change. We therefore recommend that you restructure (C)10.

We recommend that Ecology create an incentive in the permit to encourage jurisdictions to base their education component on Community Based Social Marketing. This method involves assessing behaviors to be changed and the barriers and benefits of those

changes. For example, to get people to use fewer pesticides and instead to use alternative pest management techniques, one determines what can be done to make it more difficult to use pesticides and what will make the alternative techniques more desirable for people. Putting pesticides behind a lock and key at the home and garden supply store is an example of making pesticides less easy to use. A careful assessment must be done for each behavior change goal. Therefore, we recommend that jurisdictions be encouraged to pool resources and hire a social marketing expert (not just use in house staff). King County has been successful in using Social Marketing techniques and could be used as a model for Western Washington.

Specific Concerns Draft Phase II Permit

While we recognize the need for Phase II jurisdictions to ramp up their programs and understand that they cannot meet the same goals as Phase I permittees, we feel that the Phase I permit should be strengthened in a number of areas.

As noted below, many of our comments mirror those made above for the Phase I permit.

S1. Permit Coverage

The "bubble" cities list that Ecology has developed does not include important urbanized areas with significant stormwater problems such as the cities of Shelton and Belfair. We also believe that, in areas where bubble cities are designated, the state should designate bubble counties to fully address the problem in that region.

S2. Authorized Discharges, S4. TMDLs, and S5 Standards
(See comments on Phase I above)

S6. Monitoring

While we would not expect a Phase II jurisdiction to operate a program on the same level as what is defined under the Phase I permit, we do think more should be required. Some level of actual monitoring should be required in the first permit term. We would suggest that, at minimum, the state require that a Phase I monitoring program be *implemented* in the final year of this permit.

The expectation should be that the proposed Phase II monitoring program meet all the requirements outlined in the Phase I program once implemented, including water quality and BMP effectiveness monitoring. The current Phase II draft does not make this clear. We do not think it is anyone's interest to have Phase II jurisdictions submitting widely divergent monitoring programs which gather data which does not mesh with information gathered by other jurisdictions.

We appreciate language which encourages collaboration among Phase I and Phase II permittees on this matter.

S7 Stormwater Management Program

While we do not object to formatting the Phase II permit based on the EPA "six minimum measures" we believe that some effort should be made to make the requirements of the two permits similar. In many cases, the Phase II language is less prescriptive than similar requirements in Phase I. We think that the Phase II language should be improved in these areas. Phase II does not include a section that corresponds to (C)6 on "structural stormwater controls." Some review of these issues should be incorporated into the Phase II permit. This represents a large gap in the coverage of this permit.

The permit requires that a program incorporating the features outlined in S7 be developed and implemented "during the term of this permit." That could mean a five year delay (perhaps longer) delay in implementing the Phase II programs. This is unacceptable. The programs should be adopted and implemented within two years of issuance of this permit.

Regarding (C)1 and 2 regarding education, please see comments on Phase I permit above.

With regard to (C)3 on Illicit Discharges, we believe that it is important for Phase II permittees to develop a municipal stormwater map earlier in the process. We suggest you place a two year timeline on this work (as opposed to the proposed 4 year deadline). This information is needed to develop the overall program.

We strongly object to the use of a 1 acre or greater threshold for regulated sites in (C)4. How is this MEP or AKART when Phase I's are expected to regulate sites which include land disturbance of less than an acre? We are also troubled that this standard is inconsistent with the Western Washington Stormwater Manual.

Since the programs contain no BMP effectiveness monitoring, there is no mechanism to adjust BMP's. The permit should contain a mechanism for updating BMP's based on effectiveness monitoring data gathered by Phase I's if appropriate.

Again, we appreciate the fact that the permit removes barriers to LID but are very disappointed that it does nothing to require the use of LID.

Once again, we very much support the use of standards in Appendix I for new development, redevelopment, and construction.

Subsection (C)5(g) which governs pollution prevention is particularly weak, simply requiring policies and procedures to "reduce pollutants" in broadly defined areas.

Thank you for the opportunity to comment. We look forward to working with the Department and the stakeholders to make adjustments as you develop a final draft of these permits.

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People for Puget Sound